

REMARKS

Corrected formal drawings are transmitted herewith.

Claims 1, 4, 5, 7, and 9 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Kwak and Ohtani; and claims 2 and 6 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kwak and Ohtani as applied to claims 1, 4, 5, 7, and 9, and further in view of Ishihara.

The examiner is reminded that claim 1 comprises the limitations of providing a silicon substrate with an upper surface; forming an amorphous region in said upper surface by exposing said upper surface to halogen species; and forming a dielectric layer on said amorphous region. The Kwak reference teaches forming a gate oxide film and a gate electrode. It further teaches forming an insulator film on the side surface of the gate electrode and then implanting fluorine into the surface of the silicon adjacent to the spacer. The Kwak reference clearly teaches away from forming an amorphous region and then forming a dielectric layer on the amorphous region. The Kwak reference teaches forming the dielectric layer and gate electrode first and then forming an amorphous region adjacent to a spacer formed beside the gate electrode and dielectric layer. In addition, the Kwak reference teaches the formation of shallow pn junctions for the transistor source and drain regions. There is no teaching in the Kwak reference that would lead or motivate one of ordinary skill to combine implanting fluorine to form PN junctions with forming a dielectric layer above an amorphous region as required by claim 1. Therefore under 35 U.S.C. 103(a), the Kwak reference and the Ohtani patent cannot be properly combined to form a valid rejection of claim 1. Claim 1 is therefore allowable over the cited art. Claims 4, 5, 7, and 9 all comprise the limitations of claim 1 and are also allowable over the cited art.

The Ishihara patent does not teach or disclose forming a dielectric layer over an amorphous region and cannot be properly combined with the Kwak reference and the

Ohtani patent to reject claims 2 and 6. Claims 2 and 6 are therefore allowable over the cited art.

Applicant appreciates the indication that claims 3 and 8 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

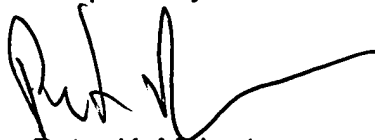
Applicant acknowledges with appreciation the indication that claims 10 and 11 are allowed.

In light of the above, it is respectfully submitted that the present application is in condition for allowance, and notice to that effect is respectfully requested.

While it is believed that the instant response places the application in condition for allowance, should the Examiner have any further comments or suggestions, it is respectfully requested that the Examiner contact the undersigned in order to expeditiously resolve any outstanding issues.

To the extent necessary, Applicant petitions for an Extension of Time under 37 CFR 1.136. Please charge any fees in connection with the filing of this paper, including extension of time fees, to the deposit account of Texas Instruments Incorporated, Account No. 20-0668.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Peter K. McLarty', with a long horizontal flourish extending to the right.

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